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SOVIET BOMBING AND STRAFING RANGES (S)

ABSTRACT

1. (S/D) Numerous locations in the Soviet Union are used by the Soviet Air Forces for training with bombs, air-to-surface missiles (ASMs), rockets, and machineguns. [REDACTED]

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[REDACTED] This report describes the target features found at these facilities and includes a table of the status and use of each range.

INTRODUCTION

2. (S/D) The bombing and strafing ranges (Figure 1) are dispersed throughout the Soviet Union and are primarily located in the areas contingent to the North Atlantic Treaty Organization (NATO) forces.

against the probable wartime opponents of the Soviet Union. The ranges used by the Soviet Air Forces, the degree of activity, and the targeting features found at the ranges indicate a high state of training and readiness by the units comprised in the Soviet Tactical and Strategic Air Forces.

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[REDACTED] The types of targets at the ranges in the Soviet Far East and in areas contiguous to China reflect a major training effort against Chinese targets and equipment. The more complex ranges in the Soviet Far East contain simulations of the Chinese CSA-1 (SA-2) missile site, as well as replicas of typical aircraft, weapons, and equipment in the Chinese inventory. A simulated airfield at Sanboli Bombing and Strafing Range (BE [REDACTED] Figure 2A) appears to be similar to Datong/Qingshuihe Airfield [REDACTED] in China (Figure 2B). This airfield is probably targeted by the Soviet bomber units training at Sanboli Bombing and Strafing Range.

3. (S/D) Ranges in the southwestern USSR (including the Black Sea area) have targets that reflect training against NATO forces in Turkey and possibly against Greece and Italy. The target airfields observed at the ranges in this area contain features that are similar to those at NATO airfields in these countries. For example, the simulated airfield at Rustavi Bombing and Strafing Range [REDACTED] Figure 3A)

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[REDACTED] Additionally, other target features observed at the ranges in the southwestern USSR reflect training against the types of equipment associated with the NATO forces near this area.

4. (S/D) Although simulated airfields were seen at many ranges in the western Soviet Union, none have yet been identified as being a replica of NATO airfields in the western or northern NATO countries. Most of these simulated airfields contain replicas of NATO aircraft, primarily the F-4 and possibly the F-106 or Mirage-type delta-winged aircraft. Additionally, the majority of these ranges have other simulated NATO equipment, including the HAWK missile system and occasionally the HONEST JOHN and/or PERSHING tactical surface-to-surface missile (TAC SSM).

5. (S/D) There does not appear to be any single facility that is the primary range for training

Simulated Airfield

7. (S/D) Simulated airfields generally consist of an outline or silhouette of a runway and occasionally contain additional features such as parallel taxiway(s), end-connecting or crossover links, alert parking aprons, support facilities, and dispersal areas with aircraft revetments and parking areas. Derelict, dummy, or mockup aircraft are usually seen at these airfields in revetments, in parking areas, or on the runway which would simulate landing or take-off activity (Figure 4).

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Derelict/Dummy/Mockup Targets

8. (S/D) The Soviets use three-dimensional targets (either derelict, dummy, or mockup equipment) for more realistic training, and there has been an increase in the use of derelict equipment to replace dummy and mockup equipment of the same type. Examples of this type of activity were the increased use of derelict tanks, trucks, artillery pieces, and aircraft (Figure 5).

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Vehicles in Various Deployed Modes

9. (S/D) Derelict, dummy, and/or mockup vehicles were commonly seen at the ranges in various modes of deployment. Trucks were seen in convoy formations or widely dispersed in open fields. Tanks were seen in frontal and wedge formations, in revetments as part of a defensive position, and dispersed in open fields (Figure 6).

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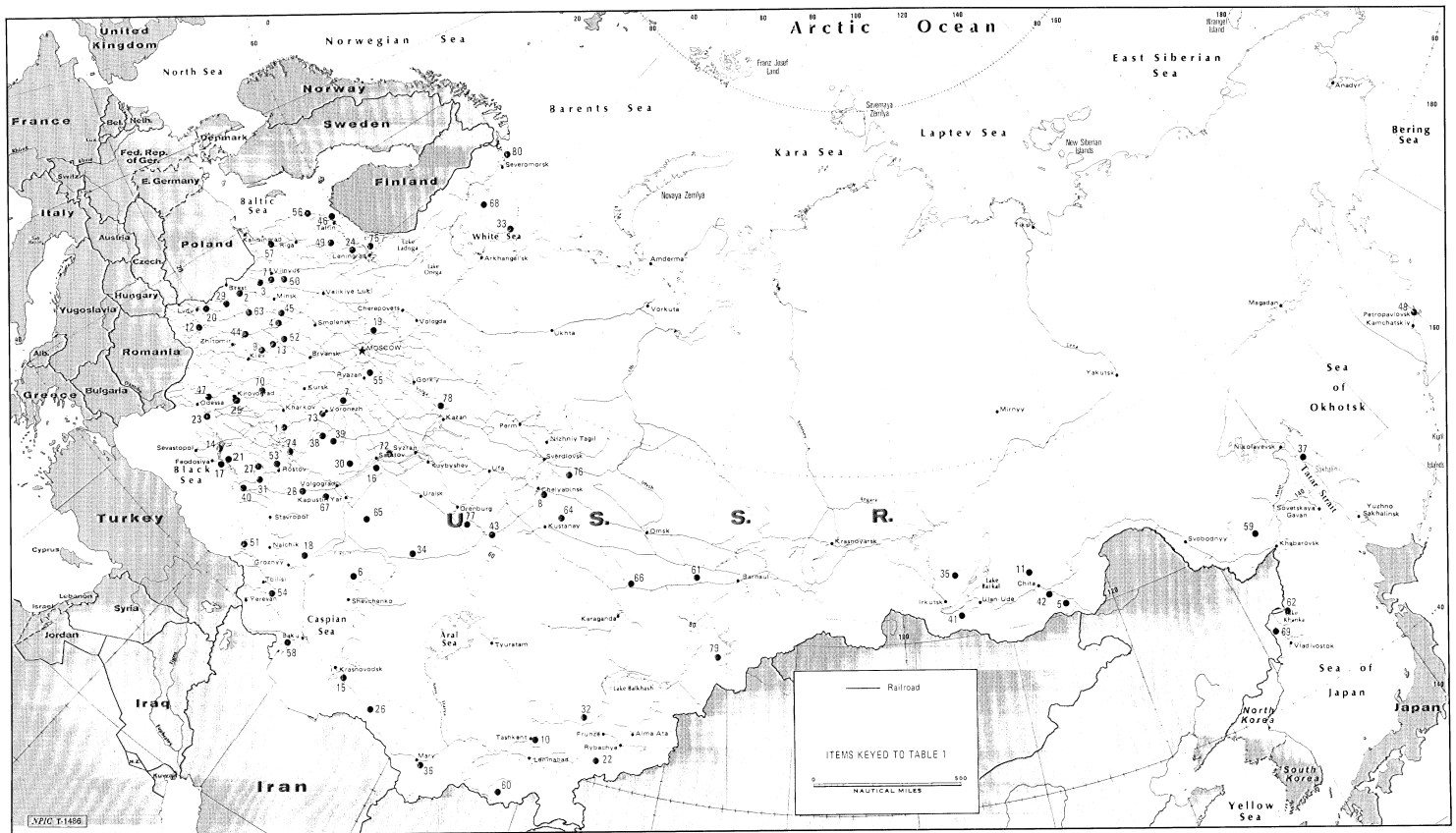


FIGURE 1. LOCATIONS OF BOMBING AND STRAFING RANGES IN THE USSR

Table 1.
Soviet Bombing and Strafing Ranges: Features, Status, and Uses
(Keyed to Figure 1)

This table in its entirety is classified SECRET//NOFORN

Item	Installation	BE No	Simulated Airfield	Demolist/Dummy/Mockup Targets Airt Tanks Trucks Other	Vehicle Deployment	Silhouette Targets Airt Other	Target Recog Area	Bombing/Strafing Targets	Simulated HAWK Tpts	Simulated CBA-1 Tpts	Simulated FAC SEM Tpts	Simulated AAA Tpts	Panel Tpts	Anti Shipping Targets	Support Facilities	Recognition Overflight	Rocket/Strafing Activity	Free Fall Bombing Activity Close Air Support High Altitude	ASM Activity
1	Andrayevka Bombing Range 49-35-10N 038-39-10E																		
2	Bezeva Bombing Range 53-44-02N 024-42-20E		X	X	X	Artillery	X	X	X						X	X	X	Prob	
3	Berezovka Bombing Range 52-40-10N 025-34-04E		X		X	Artillery	X	X	X						X		X	Prob	
4	Bobruysk Bombing Range 52-54-42N 025-12-55E																		
5	Borzn Bombing Range 50-23-30N 116-05-50E		X	X	X	Infantry Position	X	X		X	X				X	X	X	Prob	
6	Capitan Sea ASM Impact Area 45-30-00N 051-42-00E																		X
7	Chaplain Bombing Range 53-01-00N 039-59-30E			X	X		X	X	X		X				X	X	X	X	
8	Chelyabinsk Bombing Range 54-56-45N 062-16-30E		X			Unit Vehicle Artillery	8-47/52 8-57	X									X	X	
9	Chernogor Bombing Range 51-26-10N 030-45-00E			F-100	X														
10	Chizhka Bombing Range 41-38-24N 069-39-38E			X	X	X													
11	China Bombing & Strafing Range 52-26-00N 113-13-00E		X	X	X		X		Pos	X							X	Prob	
12	Churilov Aerial Bombing Target 49-14-30N 026-13-00E				X								Pos				X	X	
13	Dobruvka Bombing Range 52-00-45N 031-22-44E																		
14	Dobruvka Bombing Range 45-04-22N 035-47-00E		X	F-4	X	Radar Site					X				X	X	X	X	Pos
15	Dobruvka Bombing Range 45-47-29N 034-43-35E						8-47/52 8-57	X											
16	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	Storage Area			Pos				Pos		X	X	X	X	
17	Dobruvka Bombing Range 45-47-29N 034-43-35E						8-47/52	X						Pos			X	Prob	
18	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X													X	X	
19	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	Artillery	X	X			X				X	X	X	X	
20	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	Storage Area									X	X	X	X	
21	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	Defense Position									X	X	Prob		
22	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X		Artillery	8-57	X							X	X	X		
23	Dobruvka Bombing Range 45-47-29N 034-43-35E																		
24	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	Defense Position									X	X	Prob		
25	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	Defense Position									X	X	Prob	Pos	
26	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X											X	X	X	X	Pos
27	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X		Artillery	X	Helicopter			X				X	X	Pos		
28	Dobruvka Bombing Range 45-47-29N 034-43-35E																		
29	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	F-4	X	Helicopter	8-47/52	Helicopter	X	X					X	X	X	X	Prob
30	Dobruvka Bombing Range 45-47-29N 034-43-35E						8-57	Helicopter	X	X					X	X	Pos		
31	Dobruvka Bombing Range 45-47-29N 034-43-35E						8-57	Helicopter	X	X					X	X			
32	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	X	8-47/52	X	X						X	X	X	X	
33	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X											X	X	X	X	
34	Dobruvka Bombing Range 45-47-29N 034-43-35E		X			Radar								X		X			
35	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X		X	X	X						X	X	X	X	Prob
36	Dobruvka Bombing Range 45-47-29N 034-43-35E		X	X	X	Artillery	X	X					X		X	X	X	X	
37	Dobruvka Bombing Range 45-47-29N 034-43-35E													X	X		X	Prob	
38	Dobruvka Bombing Range 45-47-29N 034-43-35E														X	X	X	X	
39	Dobruvka Bombing Range 45-47-29N 034-43-35E																		

Table 1. (cont)

Item	Installation	SE No	Simulated Airfield	Destroyed/Dummy/Backup Airt. Tanks Trucks Other	Vehicle Deployment	Silhouette Targets Airt. Other	Target Range Area	Bombing/Strafing Targets	Simulated HAWK Tyts	Simulated CSA-1 Tyts	Simulated TAC SEM Tyts	Simulated AAA Tyts	Panel Tyts	Anti Shipping Targets	Support Facilities	Recognition Overflight	Rockets/Strafing Activity	Free Fall Bombing Close Air Support	Activity High Altitude	ASM Activity
40	Nogayevskaya Boring Range			X		X	X	X	X	X		X			X	X				
41	Nyung Bombing and Strafing Range		X	X	X	X	X	X	X	X			X		X	X	X	X		
42	Olyannaya Bombing Range							X							X	X	Prob	X		
43	Olyannaya Bombing Range							X							X	X	X	X	X	
44	Olyannaya Bombing Range		X	X	X	X	Helicopter	X	X						X	X				
45	Olyannaya Bombing Range							X							X	X	Prob			
46	Olyannaya Bombing Range		X	X	X	X	Boats	X	X					X	X	X	X	X		
47	Olyannaya Bombing Range		X	X	X	X	Ammo Storage	X	B-47/52			X		X	X	X	Prob	Pos	Pos	
48	Olyannaya Bombing Range							X							X	X	Prob	Pos	Pos	
49	Olyannaya Bombing Range		X	X	X	X		X							X	X	Prob	X	Prob	
50	Olyannaya Bombing Range							X	X						X	X	X	X		
51	Olyannaya Bombing Range			X	X	X	Artillery	X	X	X	X				X	X	X	X		
52	Olyannaya Bombing Range							X							X	X	X	X		
53	Olyannaya Bombing Range			X	X	X	Artillery	X	B-57						X	X	Prob	X		
54	Olyannaya Bombing Range		X	F-4	X	X	Radar Site	X	X	X	X				X	X	X	X		
55	Olyannaya Bombing Range							X							X	X	X	X		
56	Olyannaya Bombing Range							X								X	Prob	X		
57	Olyannaya Bombing Range		X	X	X	X	Defence Position Storage Area	X	X	X	X				X	X	X	X	X	
58	Olyannaya Bombing Range							X							X	X	X	X		
59	Olyannaya Bombing Range		X	X	X	X	Ammo Storage	X	B-57						X	X	X	X	X	
60	Olyannaya Bombing Range		X	X	X	X		X							X	X	Prob	X		
61	Olyannaya Bombing Range			X	X	X	Helicopter	X							X	X	Prob	X		
62	Olyannaya Bombing Range		X	X	X	X	Helicopter	X							X	X	Prob	X		
63	Olyannaya Bombing Range			X	X	X	POL Storage	X	X						X	X	X	X		
64	Olyannaya Bombing Range		X	X				Prob	X						Prob	X	Prob	X		
65	Olyannaya Bombing Range			X			Radar	X							X	X				
66	Olyannaya Bombing Range		X	X	X	X	Storage	X	X						Pos	X	X	X	X	
67	Olyannaya Bombing Range							X							X	X	Pos			
68	Olyannaya Bombing Range							X							X	X	X	X		
69	Olyannaya Bombing Range			X	X	X	X	X							X	X	Prob			
70	Olyannaya Bombing Range							X	X	X					X	X	X	X		
71	Olyannaya Bombing Range		X	X	X	X	Pass Radar	X	X	X					X	X	Prob	Pos		
72	Olyannaya Bombing Range		X	X	X	X	Helicopter	X							X	X	X	X		
73	Olyannaya Bombing Range		X	X	X	X		X							X	X	X	X		
74	Olyannaya Bombing Range							X	X	X					X	X	X	X		
75	Olyannaya Bombing Range							X							X	X	X	X		
76	Olyannaya Bombing Range							X							X	X	X	X		
77	Olyannaya Bombing Range		X	X	X	X		9-57	Helicopter	X	X	X			X	X	Pos	X	X	
78	Olyannaya Bombing Range							X							X	X	Pos	X		
79	Olyannaya Bombing Range		X	X	X	X	Artillery	X	B-57						X	X	Prob	X	Prob	
80	Olyannaya Bombing Range			X				X							X		Prob	Prob		

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10. (S/D) Silhouette targets, generally of aircraft and helicopters, were seen at many ranges (Figure 7). These targets are gradually being phased out and are being replaced by derelict equipment.

Target Recognition Areas

11. (S/D) Target recognition areas usually consist of grids containing rows of various types of equipment (Figure 8). Some areas have multiple rows while others have only one or two rows. Typically, these rows consist of four to six pieces of one type of equipment in each row and include tanks, trucks, aircraft, helicopters, and simulations of NATO or other hostile nation equipment.

Bombing Targets

12. (S/D) Bombing targets seen at the ranges generally consist of a cross- or plus-shaped configuration centered within one or more circles (Figure 9). These targets were either etched on the surface by earth-moving equipment or constructed of panels or other materials that have been painted white for emphasis. The cross pattern has been seen at some ranges without the outer circles.

Simulated HAWK Targets

13. (S/D) This target simulation included a rough configuration of a HAWK site with as many as six simulated launchers with missiles and support

equipment; it has also been seen as part of a target recognition area with individual simulated launchers with missiles. HAWK simulations were most frequently seen at the ranges in the western USSR, and some have been used as targets for bombing, rocket, and/or strafing attack (Figure 10).

Simulated CSA-1 Targets

14. (S/D) The simulations of the Chinese CSA-1 sites were seen at the more complex ranges in the Soviet Far East and consisted of a site usually with simulated missiles in the revetments. These sites have been used as primary bombing, rocket, and/or strafing targets (Figure 11).

Simulated Tactical SSM Targets

15. (S/D) These simulations were primarily seen in the ranges of the western USSR but have been seen at one range in the Soviet Far East. They include HONEST JOHN and PERSHING missiles and are seen in deployed configurations (Figure 12) or as part of a target recognition area.

Simulated Antiaircraft Artillery Targets

16. (S/D) This is an older type of target that has gradually been phased out and replaced by HAWK simulations. The antiaircraft artillery (AAA) sites that are still present are the typical six-position circular site and have been seen with and without simulated weapons.

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17. (S/D) Some ranges contain single or groups of panels probably used for strafing attacks. Corner reflector panels have been identified at ranges where ASM activity has been identified (Figure 13).

Antishipping Targets

18. (S/D) These targets are usually old freighters and barges that have been sunk in shallow waters and are used as bombing and ASM targets (Figure 14).

Support Facilities

19. (S/D) In addition to the varied targets seen at the ranges, many facilities have an associated range support or control area near the range. The facilities usually include administration, support, storage, and communication facilities and landing areas for light aircraft and helicopters.

Status and Use of Soviet Ranges

20. (S/D) Information on the status and use of Soviet ranges was obtained from an [redacted]

22. (S/D) Activity at the ranges was classified by type to include recognition overflight, rocket and/or strafing activity, free-fall bombing in close air support roles, free-fall altitude bombing, and delivery of ASMs. Certain types of targets are associated with specific forms of range activity. [redacted]

23. (S/D) The location of a range assisted in determining the type of activity. Several ranges are in or near urban areas, making any activity other than recognition overflight unlikely. As a general rule, the ranges used primarily for live ordnance are in remote forests and swampy areas. The condition of the range was significant in determining the type of activity at well-maintained ranges. [redacted]

CONCLUSION

26. (S/D) Weapons delivery training in the Soviet Air Forces is continuous and probably highly prioritized in Soviet preparedness planning. This is evidenced by the number of facilities available for live-ordnance delivery against varied types of targets and targets used primarily for target recognition. [redacted]

For example, early ranges had silhouette targets of the then current B-47/-52 and B-57 bombers. These have gradually been replaced by silhouettes and replicas of the more current F-106 and F-4 aircraft. Similarly, early AAA targets have been replaced by simulations of HAWK missile systems, especially in the areas facing NATO forces. This upgrading of the targets within the ranges has also revealed the replacement of crudely made mockup equipment with derelicts of the same type. This type of upgrading provided a more realistic aspect to visual observation and probably three-dimensional targets for sophisticated radar sighting devices. This activity has revealed the importance of weapons delivery training in Soviet planning. From the degree of activity and targeting features observed at these ranges, there is a clear indication of the high state of training and readiness in the Soviet Air Forces.

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